In the Specification

Please delete the paragraph added by the June 05, 2007 amendment to page 5 between lines 3 and 4 as follows:

~~Figs. 3(a)' to 3(c)' are corresponding cross-sectional views of the contour diagrams of the spin-valve structures illustrated in Figs. 3(a) to 3(c).~~

Please amend the paragraph previously amended by the June 05, 2007 amendment on page 10, lines 6-10 as follows:

~~The arrows in FIGs. 3(a)' to 3(c)' reflect preferable location for the cc-layers to be inserted. The locations are extracted from the contour diagrams of FIGs. 3(a) to 3(c).~~

Table 3: Calculation parameter sets (results are shown in FIG. 3 and 4.): Parameters in the first column (e.g., (a) and (b)) correspond to the diagrams in FIG. 3. The suffixes (F, I, Low, and High) stand for Ferromagnetic layers, Interface between Ferromagnetic layer and Cu layer, Low resistivity channel, and High resistivity channel, respectively.

Please amend the paragraph beginning on page 16, line 1 as follows:

Fig. 11 depicts a contour mapping of the ratio of ΔV of a spin-valve element as a function of the width of the conducting part of the CC-layers, each having one conducting part, and the thickness of the magnetic layers (assuming the thicknesses of the free and pinned layers are the same) to ΔV (of the spin-valve element with the same structure and the same parameters, but without a CC-layer, as were used for obtaining the results shown in Fig. 10, ΔV_0). [[As]] With the increase of the thicknesses of the magnetic layers and the decrease of the width of the conducting part ~~become smaller~~, $\Delta V / \Delta V_0$ becomes smaller. This is caused by the difference between the width (or area) of the conducting part and the effective

width (or area) of the current flow. The width of the confined current path W_{CCP} in the CC-layers which gives a constant ratio of $\Delta V/\Delta V_0$, can well be fitted with a relation, $W_{CCP} = Ct_F^{3/2}$ by least square fitting, where t_F is the thickness of the magnetic layer and C is a proportional factor, which depends on the value of $\Delta V/\Delta V_0$. For instance, C is 1.1 for the ratio of 80% and 2.6 for 90%, when t_F is measured in the unit of nm. Thus, roughly speaking, in order to attain $\Delta V/\Delta V_0$ greater than 80%, W_{CCP} should be made greater than a critical value, $W_{CCP\text{-}Cr}$, which is nearly equal to $t_F^{3/2}$ with t_F being measured in the unit of nm. This relationship was derived from the calculation using a model where CC-layers with a slit shaped confined current path were incorporated. It was confirmed that $W_{CCP\text{-}Cr}$, derived from a model where CC-layers with a square-hole shaped confined current path were incorporated, was about twice as large as that obtained for the slit type model.

Please amend the paragraph beginning on page 16, line 19 as follows:

Fig. 12 shows $\Delta V/\Delta V_0$ values obtained for the slit type and square hole type models described above plotted as a function of W_{CCP} for the same structure and the parameters as those of the model with one conducting part in the CC-layer used for the calculation for obtaining the results shown in Fig. 10. It is seen that, although ~~quantitative~~ quantitatively, a considerable difference is seen between the results obtained for the two models, the [[. The]] qualitative features for both models are quite similar.